

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED
0579-0036
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control
No. 0180-DOA-AN

Fiscal Year 2014

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0001

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF SOUTH DAKOTA
414 EAST CLARK STREET

VERMILLION, SD 57069

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.) | F. TOTAL NUMBER OF ANIMALS (Cols. C + D + E) |
|---|---|--|---|--|---|
| 4. Dogs | 0 | 0 | 0 | 0 | 0 |
| 5. Cats | 0 | 0 | 0 | 0 | 0 |
| 6. Guinea Pigs | 0 | 0 | 0 | 0 | 0 |
| 7. Hamsters | 0 | 0 | 30 | 0 | 30 |
| 8. Rabbits | 0 | 0 | 0 | 0 | 0 |
| 9. Non-human Primates | 0 | 0 | 3 | 0 | 3 |
| 10. Sheep | 0 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 0 | 0 | 0 | 0 |
| 12. Other Farm Animals | | | | | |
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| 13. Other Animals | | | | | |
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ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED
09-DEC-2014

(b)(6), (b)(7)(c)

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No. 0180-DOA-AN

Fiscal Year 2014

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0002

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SOUTH DAKOTA STATE UNIVERSITY
ADMIN 200

BROOKINGS, SD 57007

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

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|---|---|--|---|--|---|
| 4. Dogs | 0 | 0 | 0 | 0 | 0 |
| 5. Cats | 0 | 0 | 0 | 0 | 0 |
| 6. Guinea Pigs | 0 | 0 | 0 | 25 | 25 |
| 7. Hamsters | 0 | 0 | 0 | 0 | 0 |
| 8. Rabbits | 0 | 0 | 8 | 0 | 8 |
| 9. Non-human Primates | 0 | 0 | 0 | 0 | 0 |
| 10. Sheep | 10 | 0 | 73 | 0 | 73 |
| 11. Pigs | 0 | 0 | 1 | 11 | 12 |
| 12. Other Farm Animals | | | | | |
| 13. Other Animals | 6 | 485 | 136 | 152 | 773 |
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(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED
24-FEB-2015

(b)(6), (b)(7)(c)

OMB APPROVED
0579-0036

Interagency Report Control
No. 0180-DOA-AN

Fiscal Year 2014

1. REGISTRATION NUMBER
46-R-0002

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SOUTH DAKOTA STATE UNIVERSITY
ADMIN 200

BROOKINGS, SD 57007

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED _____

24-FEB-2015

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Interagency Report Control
No. 0180-DOA-AN

Fiscal Year 2014

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE**

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0003

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

DLORAH INC.
5301 S. Highway 16

RAPID CITY, SD 57701

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.) | F. TOTAL NUMBER OF ANIMALS (Cols. C + D + E) |
|---|---|--|---|--|---|
| 4. Dogs | 0 | 14 | 0 | 0 | 14 |
| 5. Cats | 0 | 12 | 0 | 0 | 12 |
| 6. Guinea Pigs | 0 | 5 | 0 | 0 | 5 |
| 7. Hamsters | 0 | 2 | 0 | 0 | 2 |
| 8. Rabbits | 0 | 4 | 0 | 0 | 4 |
| 9. Non-human Primates | 0 | 0 | 0 | 0 | 0 |
| 10. Sheep | 0 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 0 | 0 | 0 | 0 |
| 12. Other Farm Animals | | | | | |
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| 13. Other Animals | 0 | 6 | 0 | 0 | 6 |
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ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

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No. 0180-DOA-AN

Fiscal Year 2014

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0007

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

JERRY L POMMER
47825 279TH STREET

CANTON, SD 57013

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.) | F. TOTAL NUMBER OF ANIMALS (Cols. C + D + E) |
|---|---|--|---|--|---|
| 4. Dogs | 0 | 0 | 0 | 0 | 0 |
| 5. Cats | 0 | 0 | 0 | 0 | 0 |
| 6. Guinea Pigs | 0 | 0 | 0 | 0 | 0 |
| 7. Hamsters | 0 | 0 | 0 | 0 | 0 |
| 8. Rabbits | 0 | 0 | 0 | 0 | 0 |
| 9. Non-human Primates | 0 | 0 | 0 | 0 | 0 |
| 10. Sheep | 233 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 0 | 0 | 0 | 0 |
| 12. Other Farm Animals | | | | | |
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| 13. Other Animals | | | | | |
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ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED
21-NOV-2014

(b)(6), (b)(7)(c)

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Interagency Report Control
No. 0180-DOA-AN

Fiscal Year 2014

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0011

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SANFORD HEALTH
2301 E. 60th Street N.

SIOUX FALLS, SD 57104

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

SANFORD HEALTH

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.) | F. TOTAL NUMBER OF ANIMALS (Cols. C + D + E) |
|---|---|--|---|--|---|
| 4. Dogs | 0 | 0 | 0 | 0 | 0 |
| 5. Cats | 0 | 0 | 0 | 0 | 0 |
| 6. Guinea Pigs | 0 | 0 | 0 | 0 | 0 |
| 7. Hamsters | 0 | 0 | 0 | 0 | 0 |
| 8. Rabbits | 0 | 0 | 5 | 0 | 5 |
| 9. Non-human Primates | 0 | 0 | 0 | 0 | 0 |
| 10. Sheep | 0 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 0 | 0 | 0 | 0 |
| 12. Other Farm Animals | | | | | |
| | | | | | |
| 13. Other Animals | | | | | |
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ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED
23-OCT-2014

(b)(6), (b)(7)(c)

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Interagency Report Control
No. 0180-DOA-AN

Fiscal Year 2014

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NUMBER
46-R-0012

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SAB Biotherapeutics Inc.
2301 E. 60th Street N

SIOUX FALLS, SD 57104

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

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|---|---|--|---|--|---|
| 4. Dogs | 0 | 0 | 0 | 0 | 0 |
| 5. Cats | 0 | 0 | 0 | 0 | 0 |
| 6. Guinea Pigs | 0 | 0 | 0 | 0 | 0 |
| 7. Hamsters | 0 | 0 | 0 | 0 | 0 |
| 8. Rabbits | 0 | 0 | 0 | 0 | 0 |
| 9. Non-human Primates | 0 | 0 | 0 | 0 | 0 |
| 10. Sheep | 0 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 0 | 0 | 0 | 0 |
| 12. Other Farm Animals | 96 | 40 | 28 | 0 | 68 |
| 13. Other Animals | | | | | |
| | | | | | |
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ASSURANCE STATEMENTS

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(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

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SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED
09-DEC-2014

(b)(6), (b)(7)(c)

Column E Explanation

1. Registration Number: **46-R-0002**
2. Number of animals used in this study: **25**
3. Species of animals used in the study: **Guinea Pigs**

4. Procedures:

The purpose is to see if guinea pigs could serve as a model for bovine influenza C. They have been shown to be models for influenza A and B. 16 animals are challenged intranasally with bovine influenza C virus. The remaining animals are added to cages or placed in proximity to see if the virus can spread through direct contact or via aerosol transmission. Blood samples and nasal washings taken and animals are monitored for clinical signs. Euthanasia endpoints are established for the animals.

5. Scientific justification why pain and/or distress could not be relieved. Methods or means used to determine that pain and/or distress relief would interfere with test results:

NSAIDs or other symptom relieving measures would inhibit or mask animal responses and clinical signs of the disease. This would make it difficult or impossible to determine if this can be a model for bovine influenza C.

6. What, if any federal regulations require this procedure? **N/A**

Column E Explanation

1. Registration Number: **46-R-0002**
2. Number of animals used in this study: **11**
3. Species of animals used in the study: **Pigs**

4. Procedures:

The purpose of this study is to develop a university influenza vaccine. It consists of two parts, one of which was done in FY 14. In the first phase pigs are delivered via gnotobiotic C-section and challenged intranasally to determine best vaccine delivery, formulation, adjuvant efficacy and the effect/necessity of boosters. Pigs are monitored to observe their physical response and later euthanized to analyze immune (anti-M2e) response.

5. Scientific justification why pain and/or distress could not be relieved. Methods or means used to determine that pain and/or distress relief would interfere with test results:

Immune response needed to be measured, and any drugs could mask or otherwise affect this response. The stress, though unrelieved was believed to be mild.

6. What, if any federal regulations require this procedure? **N/A**

Column E Explanation

1. Registration Number: **46-R-0002**
2. Number of animals used in this study: **2**
3. Species of animals used in the study: **Bighorn sheep**

4. Procedures:

The purpose of the study is to document the shedding of respiratory pathogens in bighorn sheep, a problem in the American west. Specifically the transmission from ewe to lamb, and the effect on the lamb was studied. Ewes were allowed to lamb and the lambs were observed for signs of respiratory illness. (2 of the 5 born were infected.)

5. Scientific justification why pain and/or distress could not be relieved. Methods or means used to determine that pain and/or distress relief would interfere with test results:

The signs and symptoms of the disease progression are not easily observed in the wild. Administering pain relieving drugs or anti-inflammatories would mask signs of disease progression.

6. What, if any federal regulations require this procedure? **N/A**

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Column E Explanation

1. Registration Number: **46-R-0002**
2. Number of animals used in this study: **150**
3. Species of animals used in the study: **Deer**

4. Procedures:

A professional helicopter capture company was hired to net gun capture, blood sample, fit radio collars onto, and insert vaginal transmitters into whitetail deer. SDSU personnel monitored the data produced by the collars and transmitters to discover mortality, birthing, and movement patterns of the deer.

5. Scientific justification why pain and/or distress could not be relieved. Methods or means used to determine that pain and/or distress relief would interfere with test results:

The distress of this study is the animal capture; the study could not be done without this procedure. There was discussion as to if this was column C, momentary pain or distress or E. Procedures are carried out as quickly as possible, and a hood is used to cover the eyes of the deer and help relieve distress. All physical capture techniques were in keeping with professional society guidelines. Use of pharmaceutical stress relievers could add to mortality.

6. What, if any federal regulations require this procedure? **N/A**